

We claim:

1. A catalyst for the synthesis of methyl mercaptan, obtainable from aluminum oxide, an alkali metal tungstate and at least one ammonium salt and/or at least one protic acid selected from the group consisting of sulfuric acid, phosphoric acid, sulfurous acid, tungstic acid, phosphorous acid, hypophosphorous acid, hydrogen fluoride, hydrogen bromide and hydrogen iodide.
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2. The catalyst according to claim 1 which is obtainable from aluminum oxide, an alkali metal tungstate and at least one ammonium salt.
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3. The catalyst according to claim 1 or 2, wherein the alkali metal tungstate used is a potassium tungstate.
- 15 4. The catalyst according to claim 1 or 2, wherein ammonium salts used are sulfates, phosphates, sulfides, tungstates, molybdates, sulfites, peroxodisulfates, phosphites and hypophosphites.
- 20 5. The catalyst according to claim 1 or 2, wherein ammonium salts used are sulfur- or phosphorus-comprising salts or tungstate salts.
6. The catalyst according to claim 1 or 2, wherein alkali metal tungstates are applied in an amount of from 10 to 16% by weight, based on the total mass of the catalyst.
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7. The catalyst according to claim 1 or 2, wherein ammonium salts are applied in an amount of from 0.01 to 15% by weight, based on the total mass of the catalyst.
8. The catalyst according to claim 1 or 2 which has a pH of less than 9.8.
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9. The catalyst according to claim 1 or 2 which has a pH in the range from 5 to 9.7.
10. A process for preparing methyl mercaptan by reacting methanol with hydrogen sulfide, wherein a catalyst according to any of claims 1 to 9 is used.
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11. The process according to claim 10, wherein hydrogen sulfide and methanol are used in a molar ratio of from 1 : 1 to 2 : 1 in the preparation of methyl mercaptan.